

GALLAI, Tibor

Critical graphs. Pt. 2. Mat kut kozl MTA 8 series A no. 3:  
373-395 '63('64).

1. Editorial board member, "A Magyar Tudomanyos Akademia Matematikai  
Kutato Intezetnek Kozlemenyei."

GALLAI, Tibor

Elementary correlations relating to the members and  
dissociative points of graphs. Mat kut kcsl MTA 9  
Series A no.1/2:235-236 '64.

1. Editorial Board Member, "A Magyar Tudomanyos Akademia  
Matematikai Kutato Intezetenek Kozlemenyesi."

GALLAI, Zoltan

HARASZTI, Istvan, dr.,; GALLAI, Zoltan, dr.

Role of penicillin in prevention of congenital syphilis. Borgyogy.  
vener. szemle 8 no.4:127-129 July 54

(SYPHILIS, prevention and control)  
prev. of congen. syphilis by penicillin)  
(PENICILLIN, ther. use  
syphilis, congen., prev.)

GALLAI, Zoltan

RACZ, Istvan, dr.; GALLAI, Zoltan, dr.; FOLDES, Miklos, dr.

Data on action mechanism of unsaturated fatty acids in the therapy of childhood eczemas. Borgyogy. vener. szemle 9 no. 6:225-228 Nov 55.

(LINOLEIC ACID, therapeutic use  
eczema with hypochromic anemia in child, with linolenic acid, eff. on hematopoiesis.)  
(FATTY ACIDS, therapeutic use  
linolenic acid with linoleic acid, in eczema with hypochromic anemia in child, eff. on hematopoiesis)  
(ECZEMA, in infant and child  
compl., hypochromic anemia, ther., linoleic & linolenic acid, eff. on hematopoiesis)  
(ANEMIA HYPOCHROMIC, in infant & child  
compl., eczema, ther., linoleic & linolenic acid, eff. on hematopoiesis)

*(Signature)*

RACZ, Istvan, dr.; GALLAI, Zoltan, dr.

Chlorpromazine in the therapy of skin diseases. Orv. hetil.  
97 no.15:398-399 8 Apr 56.

1. A Nephadsereg Egeszsegugyi Szolgalatnak koslemenye.

(PSORIASIS, ther.

chlorpromazine, results. (Hun))

(ECZEMA, ther.

same)

(BLISTER

form., exper., induced by iodoacetic acid, eff. of  
chlorpromazine. (Hun))

(CHLORPROMAZINE, ther. use

eczema, psoriasis & exper. blister form., results.  
(Hun))

EXCERPTA MEDICA Sec. 13 Vol. 11/7 Dermatology July 17

1815. RÁCZ St. and GALLAI Z. Budapest. \*Angaben zur Rolle des Largactils bei der Behandlung einiger Hautkrankheiten. The role played by largactil in the treatment of some skin diseases DERM. WSCHR. 1956, 134/28 (770-773) Tables 3

Largactil, 3-chloro-10-(3-dimethylaminopropyl)phenothiazine hydrochloride, inhibits the function of the parasympathetic, lowers the blood pressure, is antispasmodic, sedative, antipyretic and antihistaminic. Six patients with psoriasis vulgaris, and 16 with various types of eczemas were treated with largactil, 3 doses of 25 mg. There was no visible effect upon the cases of psoriasis but in the eczematous patients, a marked reduction or complete disappearance of itching and thus improvement of the pathological picture, was observed. Rust - Berlin

GALLAK, V. H.

## USSR/Chemistry - Oxygen, Chlorine Production and Use of Oxygen

"Method for Separate Catalytic Products of Chlorine From  $\text{Ca}(\text{ClO})_2$ ," V. M. Gallak and Chlorine From  $\text{Ca}(\text{ClO})_2$ , U.S. Pat. No. 2,788,884.

"Zhur Prik Khim. Vol. 11, No. 1, 1967, p. 102. In absence of  $H_2O$ , inexpensive, available  $Ca(ClO)_2$  with small amounts of catalysts at low temperatures can activate oxidation processes, while  $O_2$  may be prep'd with larger amounts of catalysts at higher temperatures. Catalysts are oxides of Ni, Co, Fe, Cu, Mn, most satisfactory for development of  $O_2$  being  $Co_2Fe$  in 3:2 ratio. Catalysts and  $Ca(ClO)_2$  will not interfere.

USSR/Chemistry - Oxygen  
(Contd)

can be used to replace very scarce  $KClO_3$  (for production of  $O_2$ ) and compds of Mn and HCl (for production of  $Cl_2$ ).

19026

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R000614120011-5"

GALLAK, V.M.; BELINSKAYA, N.I.; PAVLOVA, T.A.

Chlorination of methane by chlorine oxide. Zhur.prikl.khim. 38  
no.11:2599-2602 N '65.

(MIRA 18:12)

1. Submitted October 14, 1963.

GAKHAR V.M.

The chemical dyeing of wood with nitrogen oxides. V. M. Gakh. *Drevopriborostroyenie*, 1959, No. 4, 10-11 (1959). Wood from aspen, pine, birch, beech, and oak was dyed with N oxides; the insect and bacterial resistance of the wood was increased, and the surface given an orange to brown color. The wood may be dyed by subjecting it for 5 min. to an atm. of  $\text{NO}_2$  (prepd. from  $\text{NO}$  and  $\text{O}_2$ ), or by immersion of the wood for 10-15 min. in a 5% aq. soln. of  $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$  followed by treatment for 30 min. with  $\text{NO}_2$ . In the prepn. of  $\text{NO}$ , 0.8 g.  $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$  and 0.20 g.  $\text{NaNO}_2$  are mixed and 1.3-1.4 cc.  $\text{H}_2\text{O}$  is added. The gases are highly toxic. John Lake Key

GALLAK, V. M.; BUDINSKAYA, N. I.; PAVLOV, T. S.

Method of preparing chlorine oxide. Zhur. prikl. khim., 38 no. 6:1225-  
1229 Je '65. (MIRA 18:10)

GALLAN, A., inz.

Final reports on scientific research tasks assigned by the  
Czechoslovak Academy of Sciences, Building and Architecture  
Institute of the Slovak Academy of Sciences, Bratislava.  
Stav cas 11 no.8:532 '63.

MEGHEA, C.; DACU, Gh.; CONSTANTINESCU, M.; GALLANI, S.; IVANESCU, V.; NEGORESCU, M.

Our experience with the one-stage complex surgical cure of  
complicated thoracic tuberculous spondylitis. Rumanian med.  
rev. 7 no.3: 70-73 Ja-Mr'64.

CALUSINSKI, Bogdan, mgr.; GALLAR, Jan, mgr. inz.; SKORUPA, Andrzej,  
mgr. inz.

Testing pressure welds in steel constructions with the ZSK-2  
magnetic flaw detector. Przegl. spaw 15 no.10:228-229 0'63

1. Akademia Gorniczo-Hutnicza, Krakow.

GOLECKI, Jozef; GALLAR, Jan

Design solutions and computing methods of blast furnace skip hoists. Problemy proj hut maszyn 12 no.8:229-236 Ag '64.

1. School of Mining and Metallurgy, Krakow.

CALUSINSKI, Bogdan, mgr.; GALLAR, Jan, mgr. inz.; SKORUPA, Andrzej, mgr inz.

Magnetic method of testing butt welds. Przegl spaw 16 no.7/8:  
189-190 Jl-Ag'64

1. Technical University, Czestochowa (for Calusinski). 2. School  
of Mining and Metallurgy, Krakow (for Gallar and Skorupa).

L 61967-65 EWP(c)/EWP(v)/T/EWP(k)/EWP(1)/EIC(m)  
ACCESSION NR: AT5015383

PF-4 118  
PO/2531/6/000/005/0145/0150 9

18  
B71

AUTHOR: Galusinski, Bogdan; Gallar, Jan

TITLE: Investigations on a prototype of the ZSK-1 transistorized magnetic flaw detector

SOURCE: Czestochowa, Politechnika. Zeszyty naukowe, no. 24, 1964. Nauki podstawowe, no. 5, 145-150

TOPIC TAGS: magnetic defectoscope, flaw detection, transistorized flaw detector

ABSTRACT: In the introductory section, the paper briefly discusses the present-day achievements in the testing of magnetic materials using magnetic flaw detectors. The difference method and the bridge method of magnetic flaw detection are discussed. A new design for a magnetic flaw detector using the bridge method is proposed. Its schematic is shown in Fig. 1 of the Enclosure. A one-stage amplifier was found to provide sufficient gain on account of the high sensitivity of the detector (an earphone from a hearing-aid apparatus). The complete instrument was mounted on a 20x9 cm celluloid plate. A 3-point measurement procedure is given. Appearance of an acoustic signal in the earphone indicates the presence of a flaw, and the signal intensity provides some measure of the flaw extent. The method of measuring the instrument sensitivity is also given. The instrument can detect, with sufficient certainty, flaws 1 mm in diameter at a depth of 18 mm under the

Card 1/3

L 61367-65

ACCESSION NR: AT5015383

surface. Various possible applications of this instrument are given. Orig. art. has 3 figures.

ASSOCIATION: Katedra Fizyki, Katedra Mechaniki i Wytrzymalosci Materiałów, Politechnika Częstochowska (Departments of Physics and of Mechanics and Strength of Materials, Częstochowa Polytechnic Institute)

SUBMITTED: 00

ENCL: 01

SUB CODE: EC, IE

NO REF SOV: 001

OTHER: 003

Card 2/3

L 61967-65  
ACCESSION NR: AT5015383

ENCL: 01

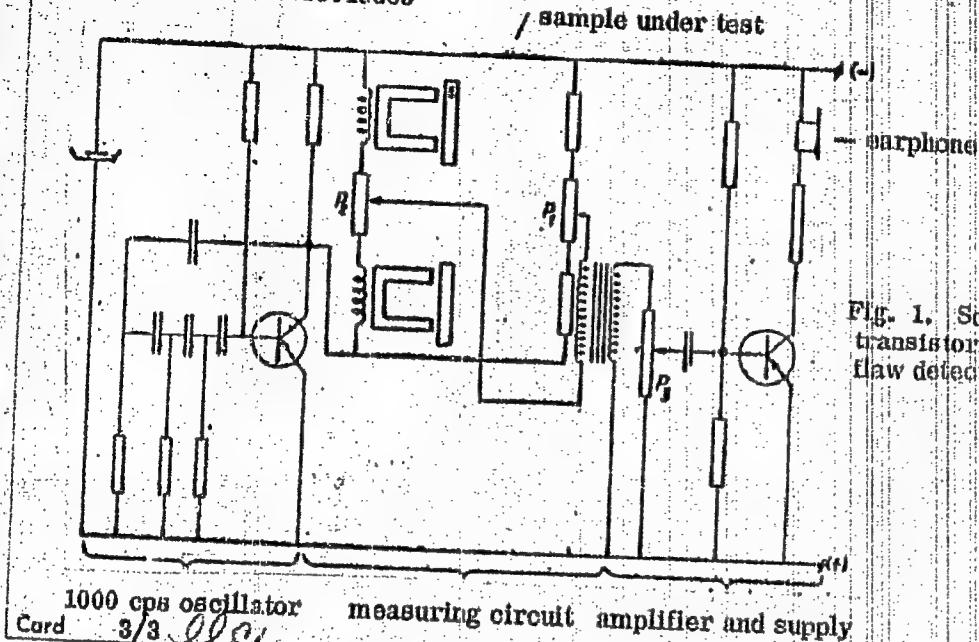


Fig. 1. Schematic of the transistorized magnetic flaw detector

L 38141-65 EWT(d)/EWP(c)/T/EWP(r)/EWP(z)/EWP(l) P.1.4  
ACCESSION NR: AP5006980

P/0034/65/000/002/0082/0083

AUTHOR: Calusinski, B. (Master); Golecki, J. (Docent, Doctor, Engineer);  
Galla, J. (Master engineer);

TITLE: The transistorized magnetic flaw detector ZSK-2

SOURCE: Pomiary, automatyka, kontrola, no. 2, 1965, 82-83

TOPIC TAGS: Flaw detector, magnetic flaw detector, transistorized flaw detector,  
internal flaw / ZSK-2 flaw detector

ABSTRACT: The paper discusses the methods of magnetic flaw detection used so far from the standpoint of detecting flaws located far below the surface (internal flaws). It notes that there are no methods at present which can detect flaws lying deeper than 20 mm with the exception of the expensive x-ray methods. The paper describes in detail and discusses the principle of operation and the construction of an instrument for detecting deep lying flaws (Polish Patent No. 100609). Fig. 1 of the Enclosure shows the schematic of the measuring system of the instrument and Fig. 2 shows the block diagram of the flaw detector. The frequency of the generator of sinusoidal oscillations is 4 cps and the oscillation amplitude is about 3 volts. The voltage amplification factor of the selective amplifier is 1500. A procedure for using this instrument is given.

Card 1/42

L 26141-65  
ACCESSION NR: AP5006980

Orig. art. has: 3 figures.

ASSOCIATION: Politechnika Czestochowska (Czestochowa Polytechnic Institute);  
(Golecki, Galla) Akademia Gorniczo-Hutnicza, Krakow (Mining and Metallurgical  
Academy)

SUBMITTED: 00

ENCL: 02

SUB CODE: EC, 1E

NO REF SOV: 003

OTHER: 005

Card 2/4

TOMANEK, A.; PULPYTEL, J.; GALLAS, J.

A new method of measurement of respiratory movements of the bronchi.  
Cesk.otolar.9 no.5:271-273 0'60.

1. Vyzkumny ustav tuberkuloz v Praze 8, reditel doc.dr. R.Krivinka.  
(BRONCHI physiol)  
(RESPIRATION)

ACCESSION NR: AP4033066

P/0034/64/000/004/0168/0169

AUTHOR: Calusinski, Bogdan(Tsalusin'ski, B.)(Master in arts); Galler, Jan  
(Master engineer)

TITLE: The transistor magnetic ZSK-1 flaw detector

SOURCE: Pociary, automatyka, kontrola, no. 4, 1964, 168-169

TOPIC TAGS: flaw detector, bridge detector, magnetic flaw detector, ZSK-1  
flaw detector

ABSTRACT: The authors designed the ZSK-1 because of a lack of this type of flaw detector in Poland. The design is based on detection by the bridge method. The instrument (Fig. 1) consists of an RC transistor generator with acoustic frequency, a bridge measuring system, a transistor amplifier, and receivers. It has a frequency  $f = 1000$  Hz, an amplitude of electric motor power output  $E_o = 2$  V, and an output impedance  $R_{output} = 1$  k $\Omega$ . It detects flaws that are 1 mm in diameter, located at depths of 18 mm. A slight change in the shape or dimensions of the core in the measuring system makes the instrument suitable for detecting flaws due to diminution, inclusion, and concentration of strain in ferromagnetic materials, for studying the thickness of ferromagnetic plates, and for studying

Card 1/3

ACCESSION NR: AP4033066

the thickness of foil or coatings made of nonmetallic materials. Work to improve the ZSK-1 flaw detector continues. Orig. art. has: 3 figures.

ASSOCIATION: Politechnika Czestochowska (Czestochowa Polytechnic); Akademia Gorniczo-Hutnicza, Krakow (Mining Academy)

SUBMITTED: 00

DATE ACQ: 15May64

ENCL: 01

SUB CODE: EC

NO REF Sov: 002

OTHER: 000

Card 2/3

ACCESSION NR: AF4033066

ENCLOSURE: 01

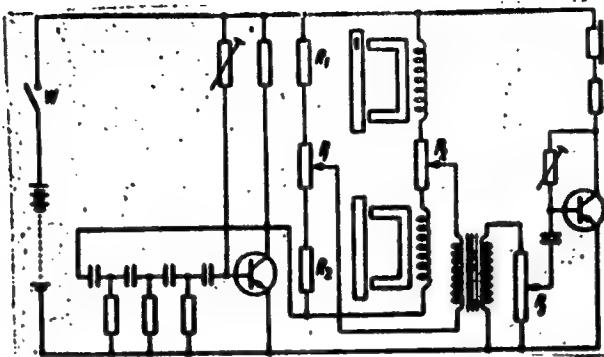


Fig. 1. Schematic diagram of the ZSK-1 flow detector

1 -  $R_1$  and  $R_2$  - Rheostates; 2 -  $P_1$ ,  $P_2$ , and  $P_3$  - Potentiometers; 3 - W - Switch

Card 3/3

SABACKY, Vladimir, inz.; HOMOLA, Bedrich, inz.; VAVRA, Miroslav, inz.;  
GALLAS, Jan

Effectiveness of the construction of main lumberyards depends  
on the use of heavy duty machines. Les cas 11 no.3:249-272  
Mr '65.

1. Enterprise Management of State Forests, Brno (for Sabacky  
and Homola). 2. Forest Enterprise Telc (for Vavra). 3. Forest  
Enterprise Rajnochovice (for Gallas). Submitted November 3,  
1964.

CA

23

**Flotation methods for purification of waste waters.** *Woodhead, Cellulose and Paper* 6, 17-20 (1930).—The problem of reuse of white water in paper mills is discussed from the view of industrial economy, stream pollution, and recovery of fiber and other raw materials. Various methods of white-water treatment prior to its release into streams, with particular emphasis on flotation-type save-alls, are described.  
T. R. Zegre

GALLAS, W.

"The Massey Coating Equipment" p. 26. (Przeglad Papierniczy, Vol. 9, no. 1, Jan. 1953, Lodz)

S0: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, Feb. 1954

GALLAS W

GALLAS, W.; RZYSKI, J.

How operational difficulties of papermaking machine No. 5 were overcome in the Paper Factory of Myszkow. p. 237. (PRZEGLAD PAPIERNICZY, Vol. 10, No. 8, Aug. 1954, Lodz, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

GALLAS, W.

GALLAS, W. Modernization of the paper machine to improve production. p. 270

Vol. 12, no. 9, Sept 1956

PRZECIAD PAPIERNICZY

TECHNOLOGY

Lodz, Poland

So: East European Accession Vol. 6, no. 2, 1957

GAILAS, W.

Modernization of the cigarette-paper machine

P. 45 (PRZEGAD PAPIERNICZY) (Lodz, Poland) Vol. 13, no. 2,  
Feb. 1957

SO: Monthly Index of East European Accession (EEAI) IC Vol. 7, No. 5, 1958

GALLAS, Wojciech, inz.

Automatic paper sorting. Przegl. papier 19 no.12: 383-386 D'63.

1. Biuro Projektow Przemyslu Papierniczego, Lodz.

GALIAS, Wojciech, inz.

Radiclon type hydrocyclone cleaner. Przegl papier 20  
no. 1: 18-20 Ja '64.

Gefias, Lodziarki, inz.

Application of pneumatic transportation in the pulp and paper industry. Pt. 1. Przegl. papier 20 no. 6:183-86 Je. '64.

1. Design Office of the Paper Industry, lods.

GALLAS, Wojciech, inz.

Use of pneumatic transportation in the pulp and paper industry.  
Pt. 2. Przegl. papier 20 no.7:218-222 Jl '64

1. Design Office of Paper Industry, Lodz.

STASINSKI, Witold, mgr inz.; GALLAS, Wojciech, inz.

Paper machine No.4 in the Szczecin Pulp and Paper Mill in Skolwin. Przegl papier 20 no.10:323-329 0 '64.

1. Szczecin Pulp and Paper Mill, Skolwin (for Stasinski).
2. Design Office of Paper Industry, Lodz (for Gallas).

DALE, I.; TIG, Z.; KAM, M.

Civil engineering experiences in the Soviet Union. p. 12.

ANNA VITKINA. (Epitoli tri Tudorovnyos Szovjet) Institute, Hungary.  
Vol. 1, no. 10, Oct. 1959.

Entitled: List of Most European Accesories (land) 11, Vol. 1, no. 1, Jan. 1959.

U.scl.

NAME: BOOK REVIEWS 507/2292

9(6)

Abrikosova, N.N. Investigation 1 on solubility in liquid  
mineral reducing element. Tp. 3 (Chemistry of rare elements, Nr. 5) Moscow  
 Izd. vser. Akad. Nauk SSSR, 1957. 125 p. 3,500 copies printed. Entered city library  
 No. 16 of Publishing House, Tp. 6. Shlyapnikov, Sov. Akad. Nauk, 1957.  
 Editorial Board: L. V. Sushkov, V. V. Sushkov, S. A. Prokof'ev, Ye. Ye.  
 Sushkov, V. G. Sushkov, and G. P. Sushkov (Sverdlovsk).  
REVIEW: This book is intended for scientists and engineers interested with the  
 study and utilization of rare elements.  
CONTENTS: The book is a collection of papers on investigation in the solubility  
 of rare elements conducted at the Institute of General and Inorganic Chemistry (Acad.  
 N. S. Bakhov) (Institute of General and Inorganic Chemistry (Acad.  
 N. S. Bakhov)). No personnel lists are mentioned. There are 185 references.  
 39 Soviet, 10 English, 11 German, 35 French, 8 Italian, and 1 Japanese.  
 Shlyapnikov, V. Ye. and V. S. Sushkov. Investigation of Solubility in  
 the System Sodium Carbonate-Sodium Sulfate-NaCl at 50°C 3  
 Sushkov, A. V. and L. P. Borchikova. Vapor Pressure of Saturated  
 Solutions in the System  $(\text{Na}_2\text{CO}_3 - \text{NaCl}) - \text{H}_2\text{O}$  6  
 Sushkov, G. G., V. S. Sushkov, V. Ye. Shlyapnikov, and E. I. Gulyaeva.  
 Determination of Solubility in the System Sodium Sulfate-NaCl  
 Saturated-Solutions at 50°C 10  
 Sushkov, V. Ye. and N. I. Lovinsk. Hydrogen Peroxide 20  
 Sushkov, L. V. and N. V. Sushkov. Gallic Peroxides and Their  
 Analytical Significance 21  
 Sushkov, A. V. Investigation of the Interaction of Iron and Gallic  
 Acid in Aqueous Solutions 27  
 Sushkov, A. V. and L. V. Sushkov. Investigation of the Interaction of  
 Iron and Gallic Acid 28  
 Sushkov, V. G. and A. P. Norkin. Synthesis and Thermogravimetric  
 Investigation of Iron Complexes of Tannin 37  
 Sushkov, A. V. and P. N. Novikov. Isothermal Solubilities of  
 Tannin in the System Tannin - NaCl - H<sub>2</sub>O and HgCl<sub>2</sub> - H<sub>2</sub>O 100  
 Sushkov, N. I. The Chemical Method of Determination of Thallium  
 Alkalies, I. I. Ye. and L. I. Koval'cik. Quantitative Determination of  
 Thallium via Pyridine 105  
 Sushkov, V. G., A. V. Sushkov, and N. I. Alabeyeva. Investigation  
 of Determination of Thallium 115  
 Sushkov, N. I. A Project of Compiling a Reference Guide on Rare  
 Earth Metals 121  
AVAILABLE: Library of Congress  
 Card 5/5

20/1-55  
61

TRET'YAKOV, Andrey Vladimirovich; GALLAY, B.M., redaktor; VALOV, N.A.,  
redaktor izdatel'stva; KAPASEV, A.I., tekhnicheskiy redaktor

[Rolling thin strips] Prokatka tonchaishei lenty. Moskva, Gos.  
nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii,  
1957. 96 p.  
(Rolling (Metalwork))

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R000614120011-5

GALLAY, Michal, inz.

Waterwork of Velka Domasa. Vodni hosp 13 no.1:37-38 '63.

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R000614120011-5"

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D29/D301

17.4100

AUTHORS: Kibardin, Yu., Candidate of Technical Sciences, and  
Gallay, M., Honored Test-Pilot of the USSR, Hero of  
the Soviet Union

TITLE: Barrier of the unknown. Engineers look forward

PERIODICAL: Znaniye - sila, no. 3, 1962, 17 - 19

TEXT: The article is based on an incident in a Soviet feature film "Barrier of the Unknown", which is shortly to be released. A super-fast test plane (no undercarriage) is cruising at 5,200 km/hr at a height of 92,000 meters waiting to be picked up by the carrier plane. A blue glow suddenly develops outside the plane and envelops the whole fuselage. However, it is not sensed by the pilot and is not recorded on any of the instruments. This phenomenon is then left to the two authors mentioned above to explain. Kibardin gives two possible explanations of the phenomenon. 1) The temperature of the boundary layer rises sufficiently to cause molecular dissociation of the air and the formation of atomic oxygen and nitrogen. X

Card 1/2

Barrier of the unknown. Engineers ...

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D298/D301

These then enter into chemical reaction to form nitrous oxide, a gas that can glow at high temperatures. Although the glow is of no danger, the active atomic oxygen may enter into reactions with the superheated metal fuselage of the plane, weaken its strength and lead to an explosion. 2) Through friction with the air the plane may become charged to a very high potential and become a source of electrical discharge in the form of a cold glow. Gallay gives no explanation of the glow phenomenon but describes the development up to the end of World War II of the launching and recovery of planes from a carrier plane in the Soviet Union. Persons mentioned as connected with this development are: Aviation Engineer V.S. Vakhmistrov, Test-Pilots Anisimov and V.P. Chkalov, Pilot A.I. Zalevskiy, Test-Pilot V.A. Stepachenok, Captain Arseniy Shubikov. The authors point out that nobody has yet seen such a glow as is described. There are 6 photos.

Card 2/2

L 10109-63 FA/EPA(b)/ENT(d)/ENT(1)/EWA(g)/ENT(n)/BDS/ES(v)--AEDC/AFFTC/  
ASD/APMDC/APGCC/SSD--Pd-4/Py-4/Pa-4  
PHASE I BOOK EXPLOITATION SOV/6364

Gallay, M. L.

77

73

Osobennosti pilotirovaniya reaktivnykh samoletov (Special Features  
in Piloting Jet Aircraft) Moscow, Izd-vo DOSAAF, 1962. 195 p.  
Errata slip inserted. 7600 copies printed.

Ed.: A. A. Vasil'yev; Tech. Ed.: L. T. Mikhлина.

PURPOSE: This manual is intended to familiarize pilots, instructors,  
and engineering personnel in the handling of jet aircraft. It can  
be used also by DOSAAF schools and the Civil Air Fleet.

COVERAGE: The book discusses the theory of high-speed aerodynamics,  
and the piloting of jet aircraft under various conditions.

TABLE OF CONTENTS [Abridged]:

Introduction

3

Card 1/3

Mention is made of an experimental aircraft  
which has attained speeds exceeding Mach 5.

L 10409-63

## Special Features in Piloting Jet Aircraft

SOV/6364

3

and of the development and introduction of special equipment for rapid pressurized fueling of aircraft.

Ch. I. Takeoff Procedures For Jet Aircraft

14

A number of designs for the control of a wing's boundary layer have been drawn up, and the first wind-tunnel and flight tests have given positive results.

## Ch. II. Ascent and Ceiling

40

## Ch. III. Flight at High Speeds and Altitudes

55

The spontaneous oscillation of an aircraft at high altitudes is eliminated by an oscillation damper, which is part of the control system.

The damper automatically compensates for aircraft oscillation, and pilot control is achieved with one motion of the controls.

Card 2/3

L 10409-63  
Special Features in Piloting Jet Aircraft

SOV/6364

95

Ch. IV. Range and Duration of Flight

Ch. V. Piloting Spin and Recovery

Ch. VI. Landing Approach and TouchdownCh. VII. Special Features on the Control of the Rudder,  
Aileron, and Propulsion Systems of Jet Aircraft

113

156

179

Automatic electronic devices for simplifying controls, already in use, will be applied on a large scale, as will cybernetic piloting units. The automatic fuel devices used on all modern jet engines independently regulate the engine to the flight program designated by the pilot with a "single jerk" of the control levers.

AVAILABLE: Library of Congress

SUBJECT: Aerospace

bm/ch  
Card 3/3

AD/dk/jw  
7/30/63

GALLAY, M. L.

Opredelenie profil'nogo soprotivleniya kryla samoleta v polete metodom impul'sov. Moskva, 1938. 36 p., illus., tables, diagrs. (TSAGI. Tekhnicheskie zaretki, no. 161)

Bibliography: p. 36.

Title tr.: Determination of profile drag in flight by momentum measurements.

TL570.M6 no. 161

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

GALLAY, M.L.

Vliyanie skorostnogo pola vokrug samoleta na pokazaniia al'tinetrov i  
barografov. (TSAGI, Trudy, 1939, p. 3-9, illus., diagrs.)

Title tr.: Effect of velocity distribution of air around the aircraft upon  
indicators of altimeters and barometers.

QA911.M65 no. 427

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955

GALLAY, M. L.

GALLAY, M. L., and B. N. EGOROV.

Izmerenie temperatury naruzhnogo vospodukha v polete. (TSAGI. Trudy, 1939, no. 427  
p. 6-8, diagrs.)

Title tr.: Measurements of outside air temperature in flight.

QA911.M65 no. 427

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955

CHALAI, M.L.

Ob uluchshenii prodol'noi ustoichivosti seriinykh samoletov. (Tekhnika  
vozdushnogo flota, 1945, no. 4, p. 1-7, 17, diagrs., bibliography)

Title tr.: Improvement of longitudinal stability of airplanes produced  
in series.

TL50h.Th 1945

SO. Aeronautical Science and Aviation in the Soviet Union. Library of  
Congress, 1955.

GALLAY, M. L.

86-5-5/24

AUTHOR: Gallay, M. L., Col, Test Pilot, First Class, Hero of the  
Soviet Union, Candidate of Technical SciencesTITLE: Takeoff and Landing of an Aircraft with a Bicycle Landing  
Gear (Vzlet i posadka samoleta s velosipednym shassi)

PERIODICAL: Vestnik Vozdushnogo Flota, 1957, Nr 5, pp. 27-34 (USSR)

ABSTRACT: A bicycle landing gear (Figure 1) consists of the two main struts, which are located under the fuselage, in the plane of the aircraft symmetry, and of two wing struts. The weight of the aircraft is usually distributed almost equally between the main struts. The wing struts are used to prevent the aircraft from banking when it moves on the ground. They carry only a very small part of the aircraft's weight. A bicycle landing gear has no tendency toward directional instability and spontaneous turns while moving on the ground. It has perfect visibility while taxiing. Its piloting is somewhat different. The control and the braking actions in an aircraft equipped with a bicycle landing gear are independent of one another. It follows that the braking may be of any strength, that a nonsynchronous adjustment of brakes or getting a wheel onto a slippery or wet section of the landing strip affect the direction of motion or the braking regime of the aircraft. In addition, a rotating front strut permits

Card 1/4

86-5-5/24

Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.)

settling and maintaining the required radius of turn more precisely and makes easy the directional control of the aircraft at a side wind during takeoff on a landing run. An automatic increase of the attack angle during the takeoff run by means of the "squat" of the rear strut or the straightening of the front strut shortens the takeoff run distance and makes the takeoff independent of the action of the pilot. There is a diagram (Figure 2) showing the variation of the attack angle during the takeoff run of aircraft with a bicycle landing gear and an automatic increase for the takeoff. Attention should be directed to the fact that the attack angle of an aircraft with a bicycle landing gear cannot be controlled during the takeoff run up to the moment of takeoff and depends only on the design parameters of the aircraft. Aircraft of small and medium tonnage are sometimes equipped with a semi-bicycle landing gear. It is like a three-wheel landing gear whose nose wheel is left unchanged,

Card 2/4

86-5-5/24

## , Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.)

while the main wheels are squeezed together and can be withdrawn into the fuselage as one carriage. The main wheels of these aircraft are displaced to the rear from the center-of-gravity farther than in the classic three-wheel landing system. The takeoff of an aircraft with a semi-bicycle landing gear differs from that of an aircraft with a bicycle landing gear. The former takes off in an ordinary way by lifting the nose wheel and creating a fore-and-aft angle during the takeoff run. There is a schematic drawing (Figure 3) showing the basic moments acting upon the aircraft in a longitudinal plane when the aircraft is moving on the ground with a lifted nose wheel. It is evident that the moments are created by a weight force, G, a lift force, Y, an aerodynamical resistance force, X, a lift force of the horizontal empennage,  $Y_{r.o.}$ , and a thrust force of the power plant, P. When the aircraft moves on the ground in a side wind, there always appears the lateral aerodynamical force  $Z = \frac{b}{h} (N_1 - N_2)$  (Figure 4) striving to overturn the aircraft to overtake the side cause

Card 3/4

Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.) 86-5-5/24

an-uneven distribution of the load on the left and right wheels of the landing gear ( $h$  is the distance between the point of application of the force and the ground,  $b$  is half of the track gauge of the landing gear, and  $N_1$  and  $N_2$  are the forces of the earth's reaction applied to the wheels). The reaction force of the earth appearing when the front landing strut touches the ground creates a moment about the center-of-gravity of the aircraft which favors the increase of the angle of attack. As a result, the lift force increases and the aircraft repeatedly leaves the ground. Such bouncing may become progressive. The pilot of an aircraft with a bicycle landing gear must pay special attention to make the landing on the rear strut or on both struts simultaneously. There is a schematic drawing (Figure 5) showing the position of the bicycle landing gear with respect to the earth's surface during the takeoff and landing. There are 5 figures.

AVAILABLE: Library of Congress

Card. 4/4

SOV/86-58-10-23/40

AUTHOR: Gallay, M.L., Col, Test Pilot First Class, Candidate of Technical Sciences, Hero of the Soviet Union

TITLE: Lateral and Directional Stability of Aircraft (Poperchchnaya i putevaya ustoychivost' samoleta)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 10, pp 49-53  
(USSR)

ABSTRACT: A discussion and explanation of some stability phenomena, especially of those which, the author states, are often misunderstood. As soon as the aircraft changes its direction of flight by the action of turbulent air, the aerodynamic banking and yawing moments develop immediately. The yaw is righted by the directional stability. When flying in bumpy air, the overwhelming majority of bank attitudes are not caused directly by the turbulent air but are reactions to divergent motions. The lateral static stability is manifested by

Card 1/4

Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

the appearance of a lateral moment which banks the aircraft in the direction contrary to the divergent motion. The lateral and directional stabilities are the main factors which affect the character of the lateral movement of the aircraft; the designer can, by controlling these stabilities, control the lateral movement efficiently. However, by making the lateral stability too effective, the aircraft may lose its good flying qualities: it would tend to bank excessively; this phenomenon has been often mistakenly understood as the manifestation of poor lateral stability. In multi-engine aircraft, as soon as an engine located on the wing stops working, the aircraft starts yawing; it continues flying by inertia in the same direction. There have been aircraft with a much too excessive, lateral stability, and therefore they tended to be unsafe; they banked very heavily and even turned upside down. To prevent this, not the ailerons but the rudder was used; it then removed the initial cause of

Card 2/4

Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

banking. In aircraft with a "neutral" lateral stability, which is the desirable property in all aircraft, there is practically no banking in such cases of engine failure; the pilot then eliminates the yawing by adjusting the rudder trim tab. Excessive lateral stability is especially dangerous with turboprop engine aircraft because the propeller of a stopped engine develops a heavy drag (before its blades are feathered); a sharp bank can develop even when, at a moment of a raised thrust during power approach, the thrust fails to rise synchronously in all the engines of the aircraft. An increased directional stability is quite useful; it lowers, in a degree, the destabilizing effect of excessive lateral stability in cases where the value of the lateral stability itself cannot be lowered and also in the moments when the thrust fails to be symmetric. A high directional stability simplifies substantially the task of the pilot when he executes a turn since deviation from the correct attitude of the

Card 3/4

Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

aircraft develops immediately a strong righting yawing moment. A high directional stability of the aircraft makes piloting more effective and flying safer.

Card 4/4

GALLAY, M., Geroj Sovetskogo Soyuza, zasluzhennyj letchik-ispytatel' SSSR

Test pilots. IUn. tekh. 4 no.9:24-29 S '59.

(Airplanes--Flight testing)

(MIRA 12:12)

GALLAY, M.L., Geroy Sovetskogo Soyuza, zasluzhennyi letchik ispytatel' SSSR,  
kand.tekhn.nauk

Flying with incomplete and uneven thrust. Vest.Vozd.Fl. no.3:53-60  
Mr '60. (MIRA 13:9)  
(Airplanes--Aerodynamics)

GALLAY, M.

Beyond the sound barrier ("The lonely sky" by William Bridgerman and Jacqueline Hazard. Reviewed by M.Gallai). IUn. tekh. 4 no.1:42-44 Ja '60. (MIRA 13:5)  
(Jet planes--Flight testing) (Bridgerman, William)  
(Hazard, Jacqueline)

GALLAY, M. Geroy Sovetskogo Soyuza, zasluzhennyi letchik-ispytatel' SSSR.

American pilot Everest's book ("The fastest man alive" by Frank K. Everest). Reviewed by M. Gallai. Grashd.av. 18 no.1:31 Ja '61.

(MIRA 14:3)

(Airplanes—Flight testing)  
(Everest, Frank K.)

GALLAY, M.L.; VASIL'YEV, A.A., red.; MIKHLINA, L.T., tekhn. red.

[Piloting jet airplanes] Osobennosti pilotirovaniia reaktivnykh samoletov. Moskva, Izd-vo DOSAAF, 1962. 195 p. (MIRA 16:2)  
(Jet planes--Piloting)

GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuza, zasl. letchik-ispytatel' SSSR; FEDCHENKO, V., red.; GRIGOR'YEVA, Ye., tekhn. red.

[Through invisible barriers; from the notes of a test pilot]  
Cherez nevidimye bar'ery; iz zapisok letchika-ispytatelya.  
2. izd. Moskva, Molodaia gvardiia, 1962. 124 p.  
(MIRA 15:8)  
(Airplanes--Flight testing)

L 12901-63

EPR/EPA(b)/EWI(a), EWT(1)/FCC(w)/BDS, AFIC/AUFTC/ASD/AFMC/

APGC Pa-L/Pd-L/Pg-L/Pk-L/Po-L  
ACCESSION NR: AM3001368

GG/WM/J.P.G

S/0000/62/000/000/0001/0196

86

AUTHOR: Gallay, M. L.TITLE: Osobennosti pilotirovaniya reaktivnykh samoletov (Special features in  
piloting jet aircraft)SOURCE: Osobennosti pilotirovaniya reaktivnykh samoletov, Moskva, Izd-vo DOSAAF,  
1962, 11, 12, 15, 92, 185, 190TOPIC TAGS: aircraft control system, boundary-layer control, oscillation damper,  
cybernetic piloting unit

ABSTRACT: The following points of special interest are mentioned: 1) A number of designs for the control of a wing's boundary layer have been drawn up, and the first wind-tunnel and flight tests have given positive results. 2) The spontaneous oscillation of an aircraft at high altitudes is eliminated by an oscillation damper, which is part of the control system. The damper automatically compensates for aircraft oscillation, and pilot control is achieved with one motion of the controls. 3) The automatic electronic devices for simplifying controls already in use will be applied on a large scale, as will cybernetic piloting units. 4) The automatic devices are used on all modern jet engines to

Card 1/2

L 12901-63  
ACCESSION NR: AM3001368

regulate the flow of fuel to the engines in response to speed changes initiated by the pilot with a "single jerk" of the throttles. 5) Experimental aircraft have attained speeds exceeding Mach 5. 6) Special equipment for rapid pressurized fueling of aircraft has been developed and is being introduced. Orig. art. has 62 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 05Apr63

ENCL: 00

SUB CODE: AE

NO REF Sov: 003

OTHER: 002

Card 2/2

GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuza, Zasluzhennyy  
"letchik-ispytatel' SSSR; FEDCHENKO, V., red.; SAVEL'YEVA, V.,  
tekhn. red.

[Tested in the sky; continuation of the memoirs of a test  
pilot, "Over invisible barriers."] Ispytano v nebe; pro-  
dolzhenie zapisok letchika-ispytatelya "Cherez nevidimye  
bar'ery." Moskva, Molodaia gvardiia, 1963. 267 p.  
(MIRA 16:10)

(Airplanes--Flight testing)

KOTIK, Mikhail Grigor'yevich, kand. tekhn. nauk; PAVLOV, Aleksey Vasil'yevich, inzh.; PASHKOVSKIY, Igor' Mikhaylovich, kand. tekhn. nauk; SARDANOVSKIY, Yuriy Sergeyevich, inzh.; SHCHITAYEV, Nikolay Grigor'yevich, inzh.; GALLAY, M.L., kand. tekhn. nauk, zasl. letchik-ispytatel' SSSR, retsentent; KIRILLOV, Ye.A., inzh., retsentent

[Flight testing of airplanes] Letnye ispytaniia samoletov. Moskva, Mashinostroenie, 1965. 379 p. (MIRA 18:11)

GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuza, zasl. letchik-  
ispytatei' SSSR; FEDCHENKO, V., red.

[Through invisible barriers. Tested in the sky; from the  
notes of a test pilot] Cherez nevidimye bar'ery. 'Apytano  
v nebe; iz zapisok letchika-ispytatelya. Moskva, Molodaia  
gvardiia, 1965. 445 p. (MIRA 19:1)

ACC NR: A6004547

Monograph

UR/

Gallay, Mark Lazarevich

Through invisible barriers. Tested in the sky; from the notes of a test pilot  
(Cherez nevidimyye bar'yery. Ispytano v nebe; iz zapisok letchika-ispytatelya)  
Moscow, Izd-vo TSK VLSKM "Molodaya gvardiya", 65. 044 p.  
100,000 copies printed.

TOPIC TAGS: pilot training, jet aircraft

PURPOSE AND COVERAGE: This book is an account on test pilots whose work is very important for the perfection of aircraft. While writing about these men, the author tries to limit the subject of aviation technology to a minimum necessary for the understanding of the work of a test pilot. Unfortunately, the author never kept a diary on his flights and was forced to rely on his memory. His reports contain some factual inaccuracies.

TABLE OF CONTENTS (abridged):

From the author -3  
Card 1/2

ACC NR: AM6004547

The beginning of beginning -7  
I become a test pilot -31  
Flutter -56  
First jets -86  
Tested in the sky  
Success and failure-127  
TU-4 far, high, fast 4162  
Tests of TU-4 continue -199  
About courage, risks, time and many other things -231  
Yesterday it was exotic -268  
Flying techniques and flying ethics -312  
More about flying ethics -349  
One hundred twenty four -375  
Records and record holders -411  
Test pilots today -429

SUB CODE: 05, 01 / SUBM DATE: 29Mar65

Card 2/2

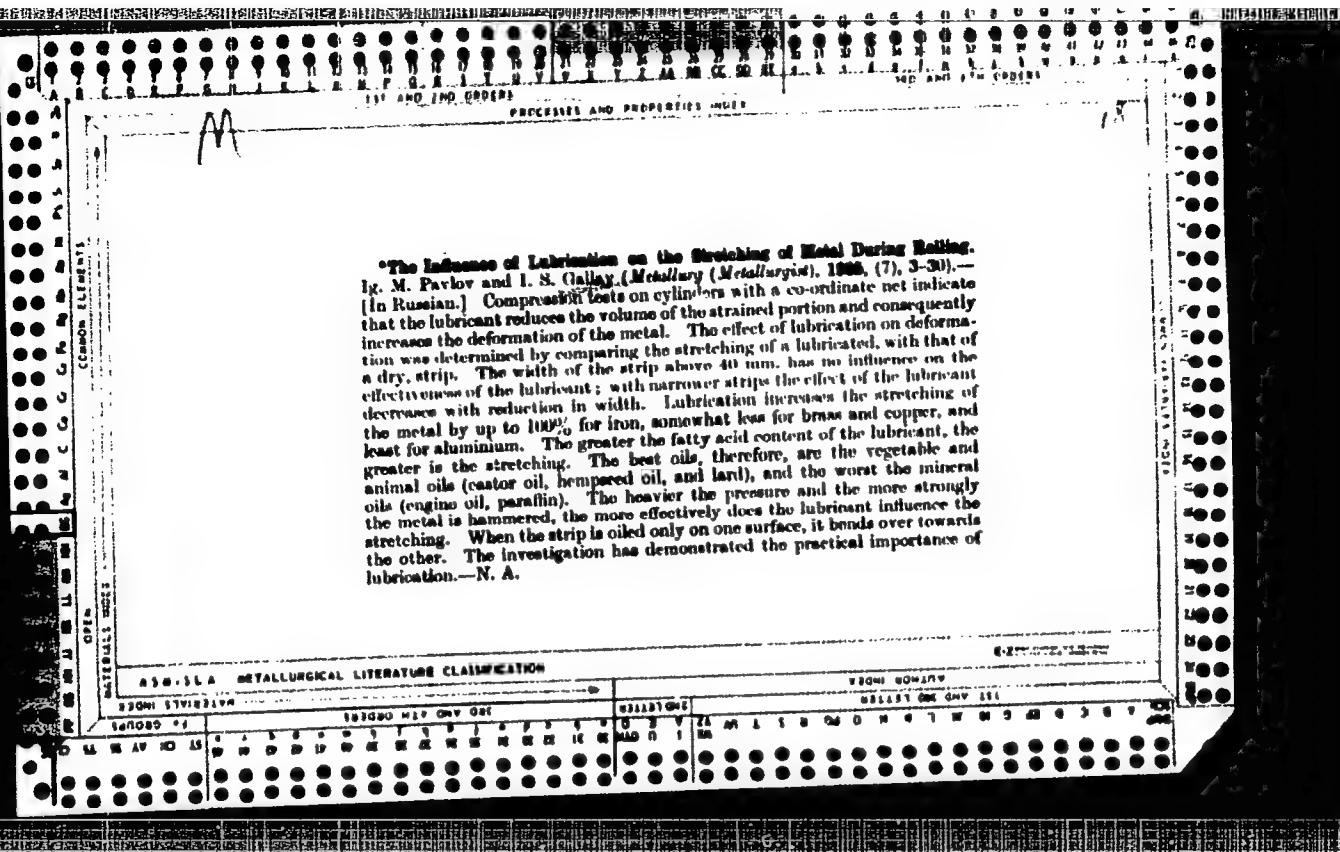
227

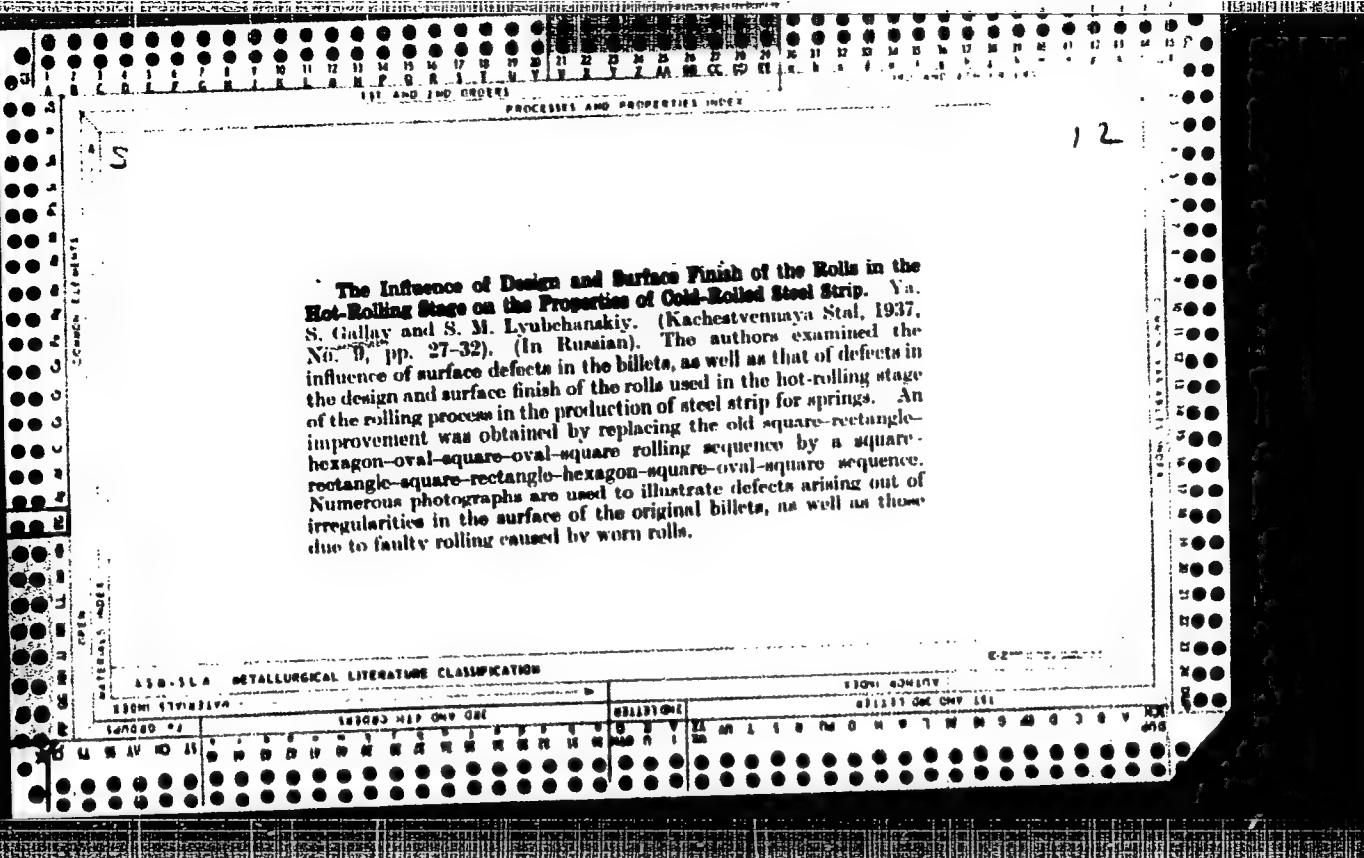
STUDY AND THE PRACTICE AND PREDICTION OF  
ELONGATION AND STRETCHING IN ROLLING

**\*Study of Elongation During Cold-Rolling.** Ig. M. Pavlov, V. S. Gallay, and N. V. Sulin. (Metallurgy (Metallurgist), 1956, (4), 6-36). [In Russian.] The centre-punch method has been used for the experimental determination of the degree of stretching or elongation in rolling. The coeff. of friction has been determined by Pavlov's expression  $K = \frac{T}{2P} + \tan \frac{\alpha}{2}$ , where  $T$  is the force pulling the metal into the rolls,  $P$  the vertical pressure of the metal on the rolls, and  $\alpha$  the angle of grip. Dry and unpolished rolls produce a high stretch. The properties of metals influence the stretch only indirectly, but act directly on the coeff. of friction. Thin strips give a large degree of stretch. The curve expressing the relation of the amount of stretch to the thickness is a hyperbola. With increase in reduction the curve becomes a parabola. The width of the strip does not influence the amount of stretching. Large-diameter rolls produce greater stretching. The only correct expression for determining the degree of stretching is that due to Pink...N. A.

AB-11A METALLURGICAL LITERATURE CLASSIFICATION

1956 804129  
CLASSIFIED ON ONE LINE



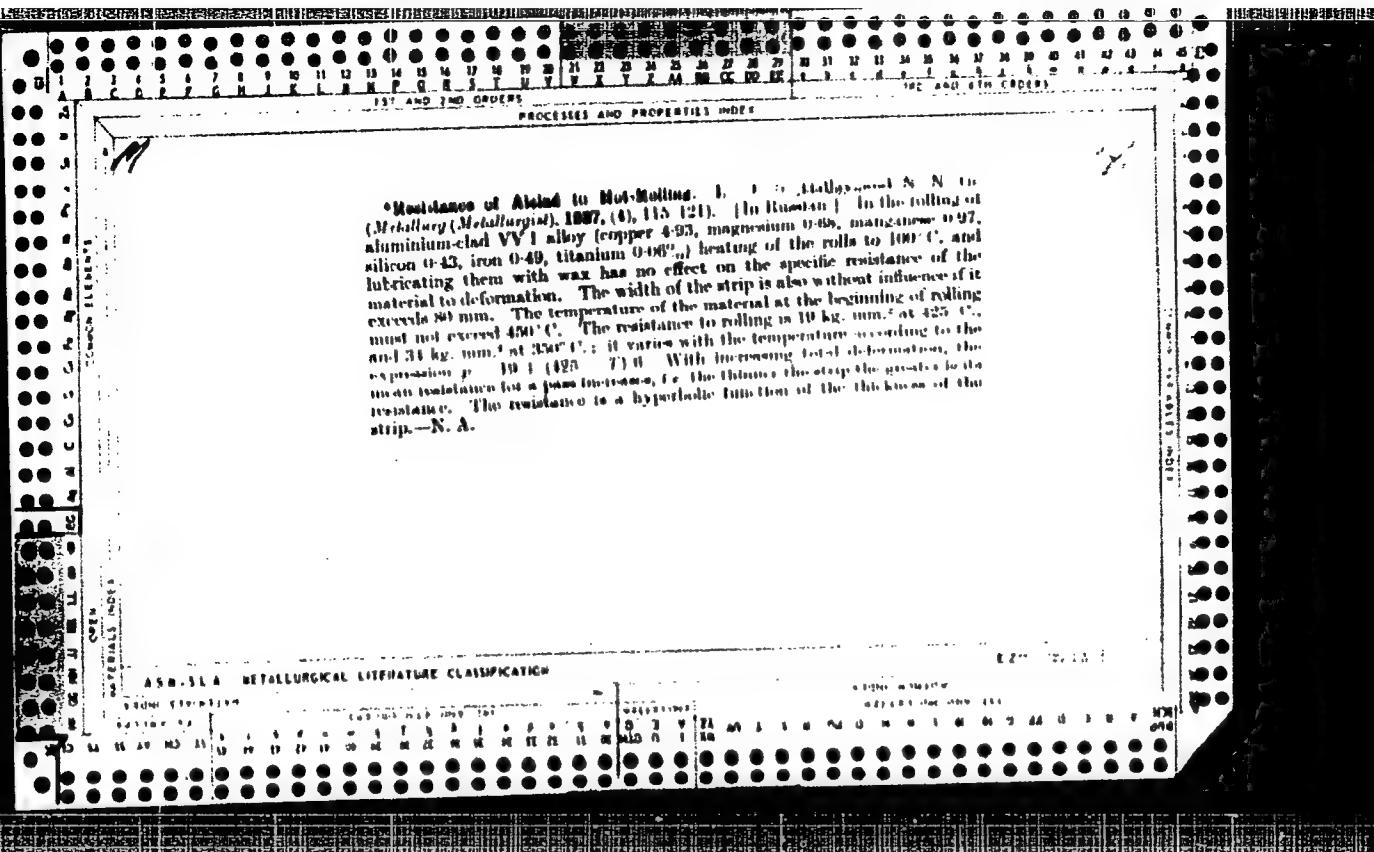


*M**18*

**\*Resistance to Deformation in the Cold-Rolling of Non-Ferrous Metals and Alloys.** Ig. M. Pavlov and J. S. Gajlay. *Metallurgy (Metallurgist)*, 1937, (5), no. 78). [In Russian.] The resistance to deformation of metals during rolling is given by the expression  $p \sim P/R^2 R(H - h)$ , where  $P$  is the pressure of the metal on the rolls,  $R$  is the width of the strip,  $R$  the radius of the rolls, and  $H$  and  $h$  the thickness of the strip before and after rolling. The value of  $p$  increases

with increasing width of the strip up to 60 mm., but thereafter becomes practically constant. The absolute value of the deformation or of the elongation at a single pass does not affect  $p$  up to a total elongation of 2.5. For very thin and heavily deformed strips,  $p$  becomes, however, a function of the elongation; it increases with decreasing thickness of the strip, the equation  $p \sim f(H)$  being a hyperbola. The dependence of  $p$  on thickness and on total elongation can be represented by the internal surface of a hyperbolic paraboloid. Lubrication causes a substantial decrease in  $p$  and in the number of passes required; in some cases both may be halved by the use of a suitable lubricant. The different lubricants may be arranged in increasing order of efficiency, thus: petrol, alkali, machine oil, castor oil. Curves are given showing the values of  $p$  in rolling copper, aluminium, Alcelal, 62:38 and 68:32 brass, aluminium bronze, and iron-Tombac bimetal, with and without lubrication.—N. A.

## ASA-SEA METALLURGICAL LITERATURE CLASSIFICATION

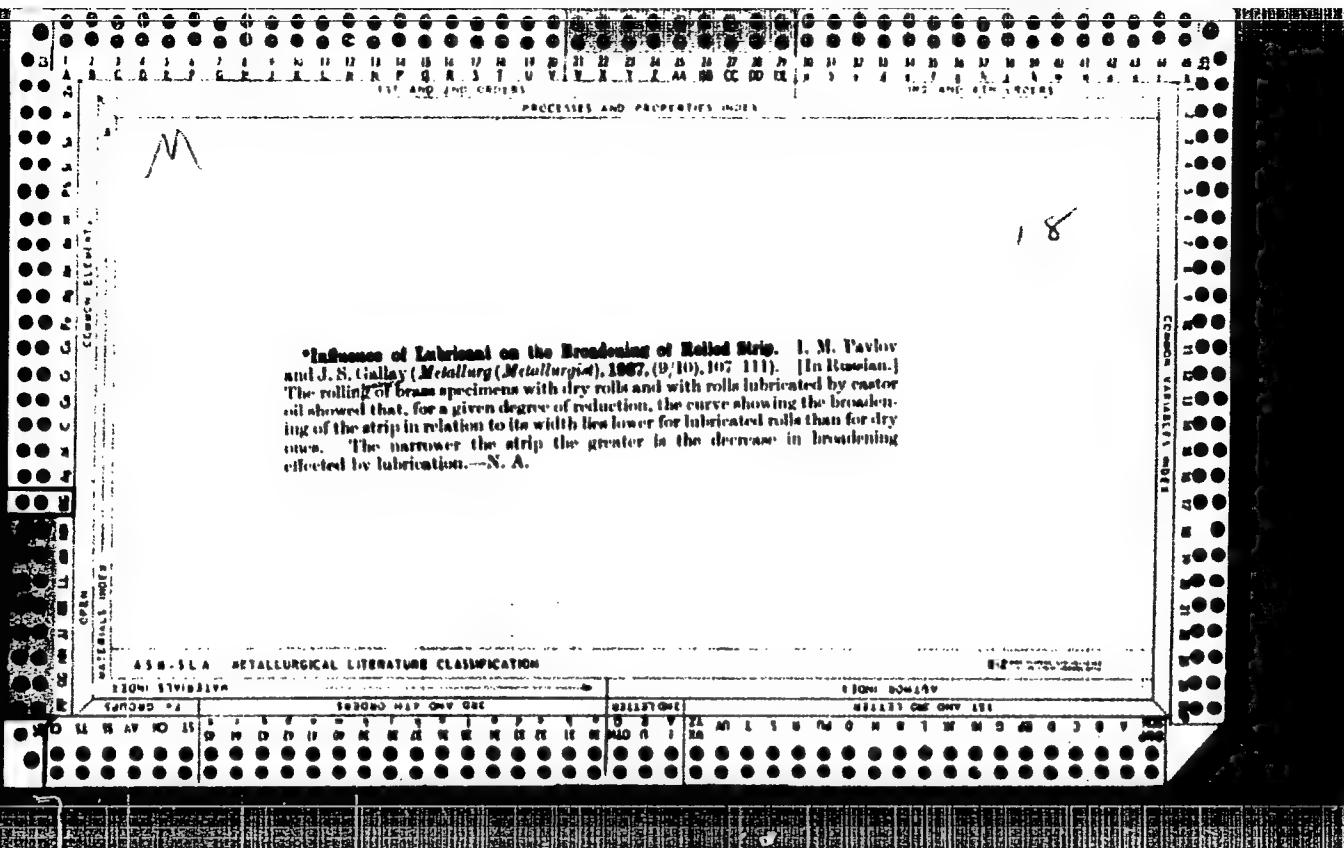


"The True Hardening of Metals by Cold-Working." Ig. M. Pavlov and J. S. Galley (Metallurg (Metallurgy), 1907, (7), 41-46).—[In Russian.] Cf. *Met.* 1907, 6, 672. Measurements were made of the resistance to deformation of electrolytic copper (copper 99.9%, antimony 0.003, arsenic 0.012, bismuth 0.002%) when passed between dry rolls and between rolls lubricated with kerosene, machine oil, and castor oil. Curves were drawn showing the force required to produce deformation after various reductions (0, 14.5, 20, 30, 79.5, 85.5%) had been given. The coeff. of friction ( $f$ ) was also measured after different reductions, and, by extrapolating the data necessary the curve so obtained after friction, it was possible to obtain the curve of resistance to deformation, i.e. the curve of "true" hardening by cold-work. The hardness of copper was found to increase from 21 to 77.7 kg./mm.<sup>2</sup> as a result of 70% reduction by cold rolling.—N. A.

ASB-16A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/16/2001

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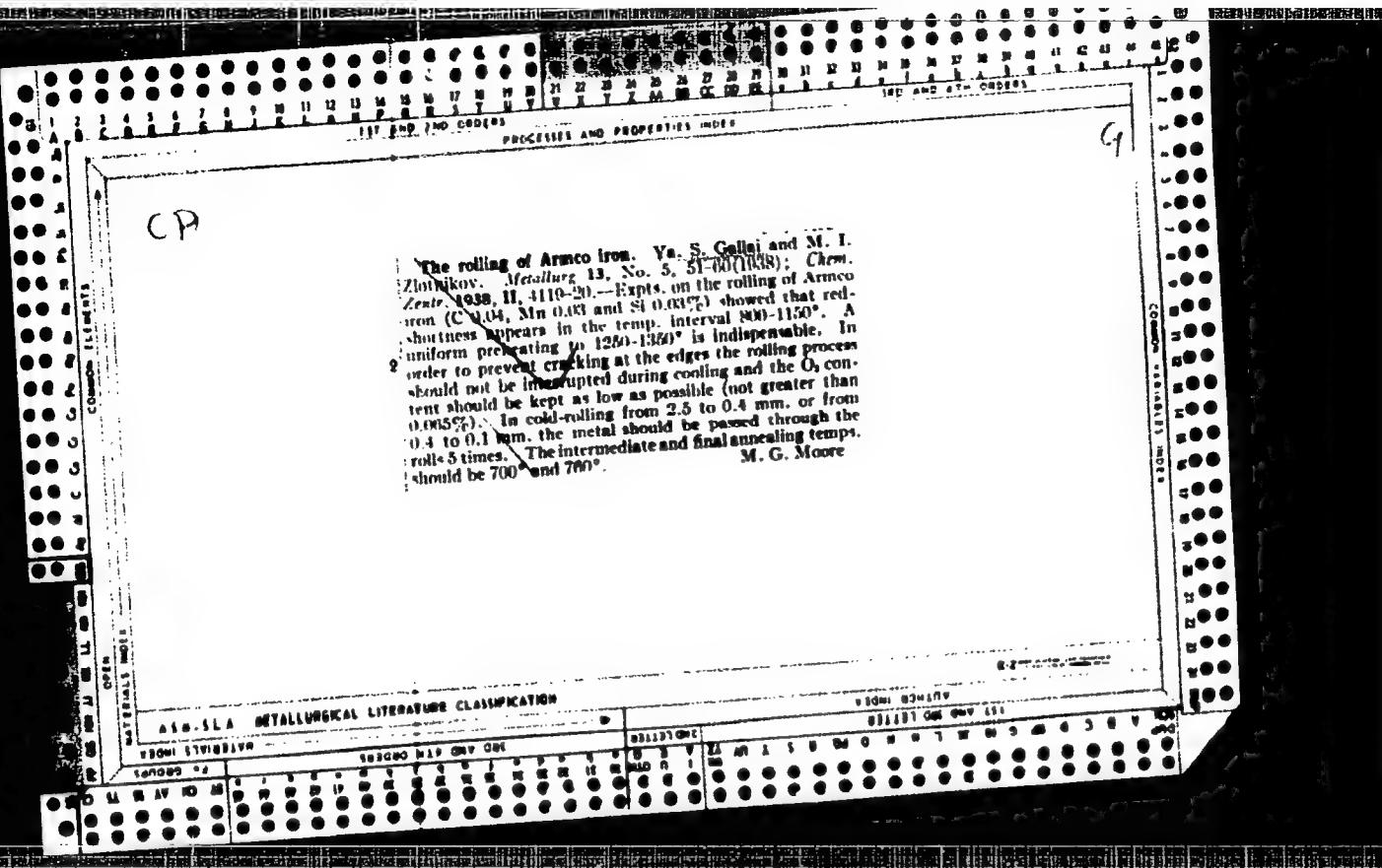


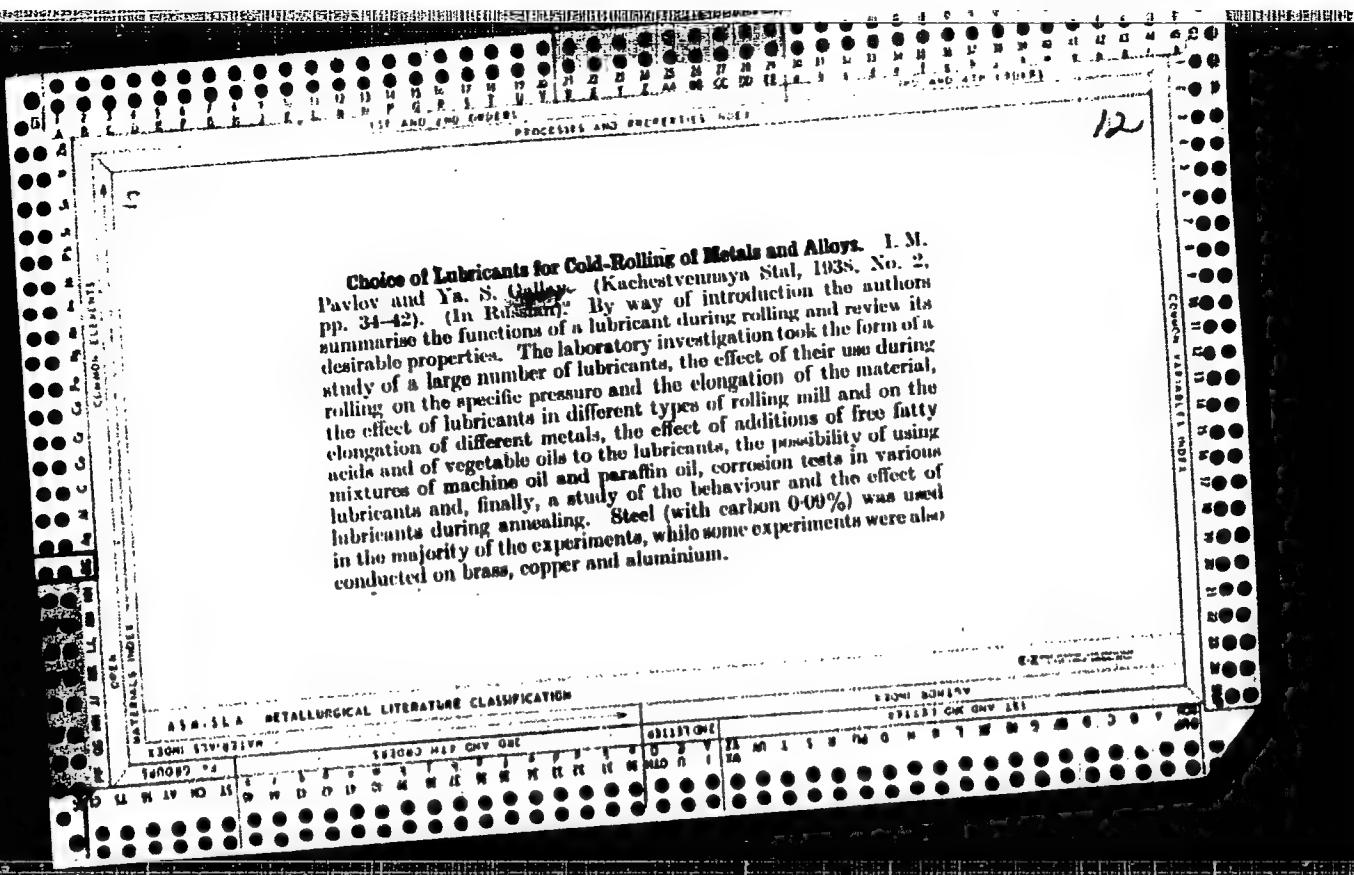
Resistance to Deformation in Cold-Rolling. I. M. Pavlov and V. S. Gaflyay. (Metallurgist, Russia, 1937, vol. 12, No. 3, Mar., pp. 62-70). (In Russian). The authors determine the resistance to deformation ( $P$ ) by cold-rolling from the formula

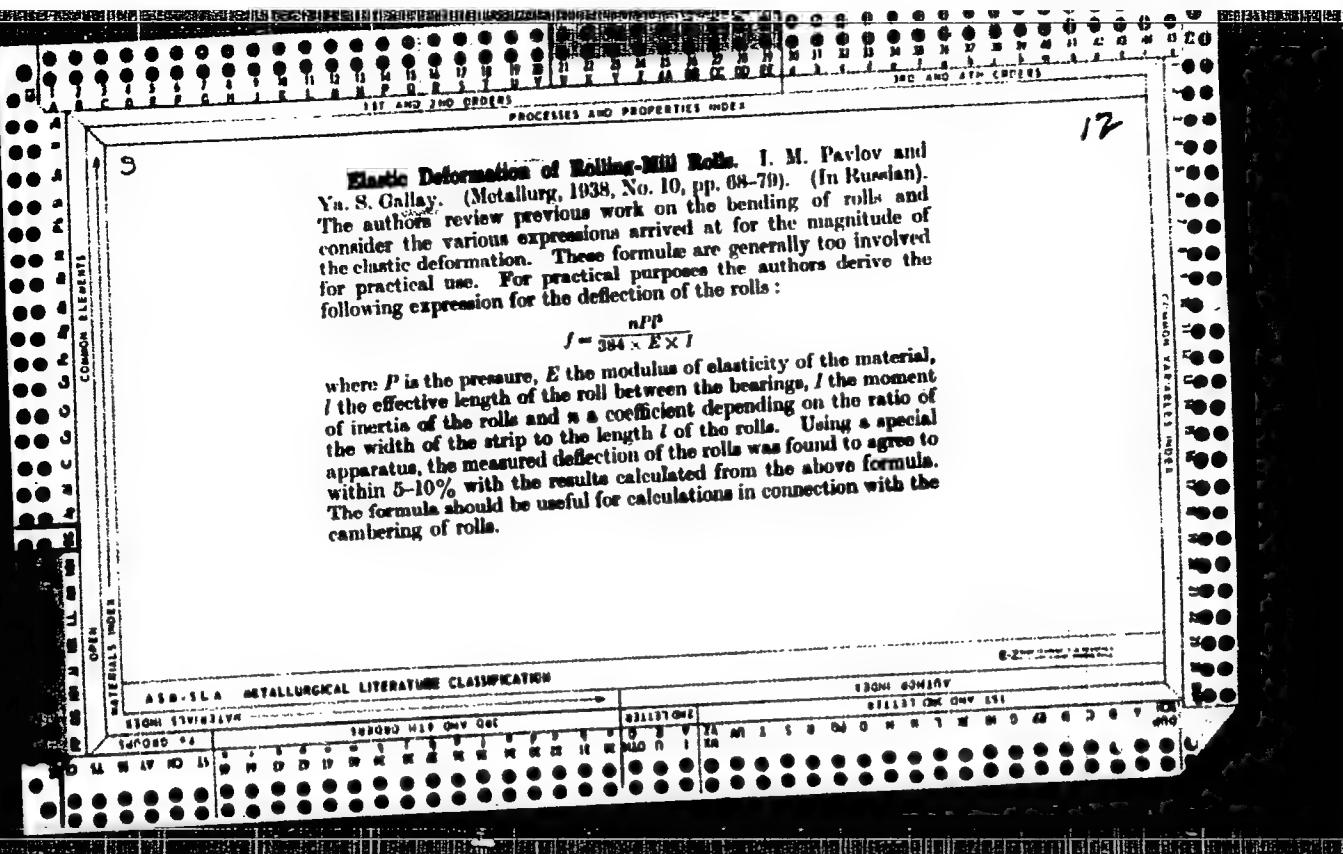
$$P = pB^2/R(H - h)$$

where  $p$  is the pressure of the metal on the rolls as found from direct measurement,  $B$  the width of the strip,  $R$  the radius of the rolls and  $H$  and  $h$  are the thickness of the strip before and after rolling. It is shown that  $P$  is independent of  $B$  for values of  $B \geq 6$  cm., and of  $(H-h)$  up to a total elongation of 250-300%. Where deformation is very heavy as in the case of very thin strip,  $p$  increases hyperbolically with increasing values of  $(H-h)$ . Lubrication causes a marked decrease in  $P$ , the efficacy of the following lubricants rising in the order: Petrol, alkali, machine oil, castor oil. The calculation of resistance to deformation is discussed for examples both with and without lubrication and it is shown that for a given reduction the number of passes may be reduced by half if the correct lubricant is employed. Non-ferrous metals were employed for these investigations.

12



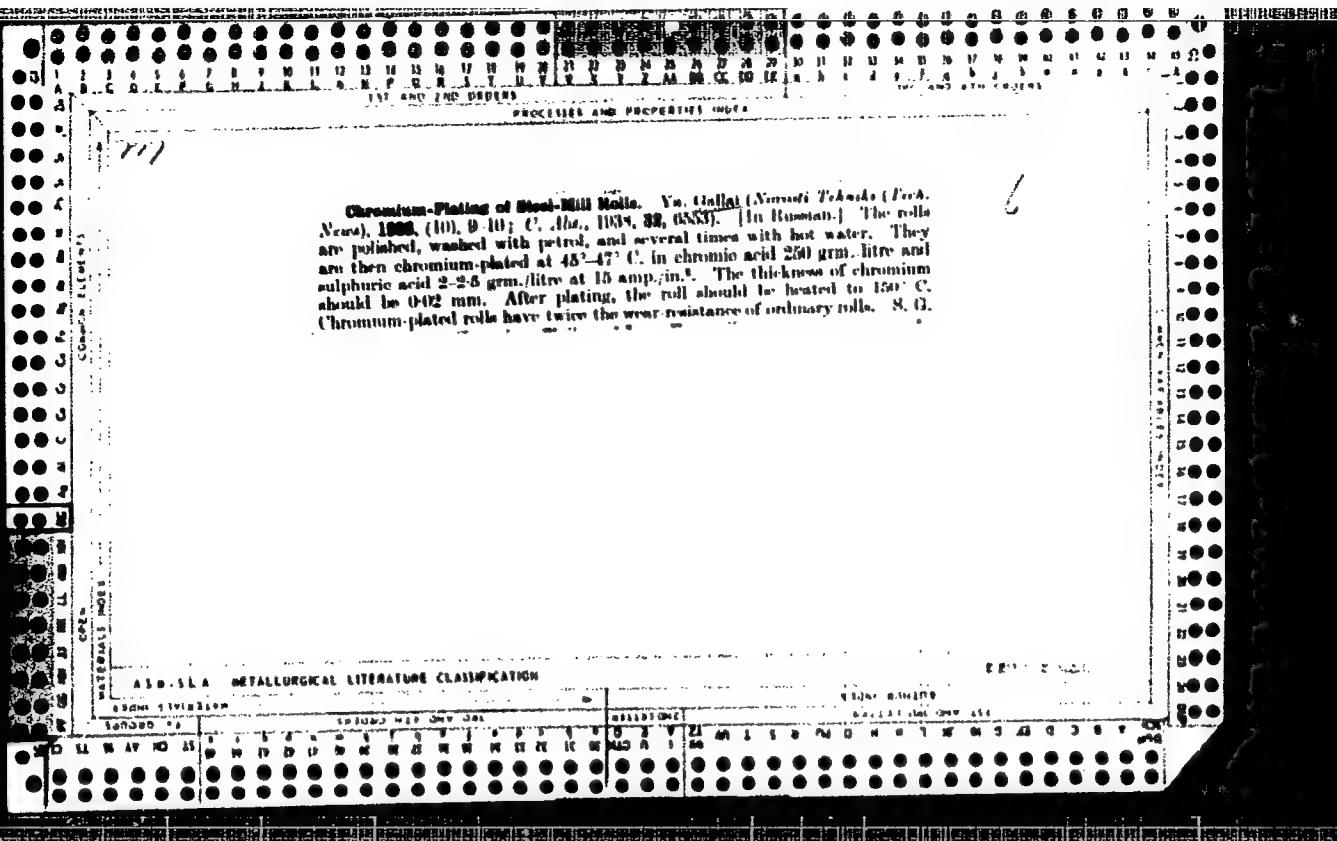




ELASTIC COMPRESSION OF ROLLING-MILL ROLLS. I. M. Pavlov and Y. S. Gallay. (*Metallurg*, 1938, no. 1, pp. 79-86). (In Russian).  
Earlier literature on the radial compression of rolls is first briefly considered and a method of directly measuring the radial compression of rolls is developed. The deformation of rolls pressed into contact is then determined by measuring the width of the imprint on the lower roll made by the upper roll which was coated with soot. Both static and dynamic experiments were performed to investigate the deformation of the rolls when a strip of uniform thickness was placed or rolled between them. In the latter case it was found that lateral spreading of the strip was confined to its edges owing to their greater reduction in thickness due to the radial compression of the rolls. There is parabolic relation between pressure and the radial compression of the rolls. Everything which tends to increase the pressure on the rolls will cause an increase in the irregularity of the lateral distribution of the reduction in thickness. This irregularity is reduced by rolling unsealed metal and by using small reductions per pass, polished rolls and

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CIA-RDP86-00513R000614120011-5"



**Lignoston** bearings for rolling mills. Va. S. Gallal, Std. No. 4, 5, 45, 91 (1939); Chem. Zent., 1939, II, 1105.—Lignoston is produced as follows: birch wood (contg. 12-14% moisture) is steeped in 20% glucose for 3 hrs. at 6 atm., and at 80-90°, pressed under 30-80 kg. sq. cm., heated to 80-90°, pressed again under 350 kg. sq. cm. (110-130°), and slowly cooled to 35°. Lignoston is a plywood impregnated with bakelite. The following properties are reported for Lignoston and Lignofol resp.: resistance to compression 200-1100 and 1300-1700 kg. sq. cm.; coeff. of friction 0.013-0.015 and 0.018; sp. gr. 1.35 and 1.36; 1.1; impact resistance (notched-bar test) 2.4-4.7 and 2.1; 8 cm. kg. sq. cm.; and capacity to absorb water 6 and 0.2%. Comparative tests on Textolite, Lignoston and Lignofol showed the following advantages and disadvantages of the 2nd two products over the first: a greater capacity for absorbing water and lubricants, greater capacity for swelling at temps. above 100°, and lower resistance to compression. Lignofol has all the advantages of Lignoston without its disadvantages. M. G. M.

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CIA-RDP86-00513R000614120011-5"

**Lignostone Bearings for Rolling Mills.** Ya. Gal'yan. (Stl., 1939, No. 4-5, pp. 45-59). (In Russian). Lignostone is made by drying birchwood to a moisture content of 12-14% and then impregnating it under pressure at 80-90° C. with 20% glucose solution. This is followed by several pressings and heat treatments. Finally the glucose with which the wood is impregnated is caramelised by heating the material to 105° C. under a pressure of 80-100 kg. per sq. cm. Lignostone was developed as a substitute for textile-reinforced bakelite for use in rolling-mill bearings. Lignofol (plywood impregnated with bakelite) is another material developed for the same purpose. The physical properties of these two materials are described and the design of bearings, the lubrication and the results of works tests are dealt with. As compared with fabric-reinforced bakelite, lignostone has a much lower loading limit (75 kg. per sq. cm. as compared with 250-300 kg. per sq. cm.); it has a tendency to swell at temperatures above 100° C. Lignofol, on the other hand, is equivalent to fabric-reinforced bakelite, and it is a cheaper material.

12

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R000614120011-5"

GALLAI, IAKOV SAMUILOVICH

Author: Gallai, Iakov Samuilovich

Title: The ligniferous bearings. The Principles of Construction  
and exploration. (Lignofolevy i lignostonovye podshipniki) 48 p.

City: Sverdlovsk

Publisher:  
Sverdlovsk State Scientific and Technical Publication.

Date: 1946

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 3, No. 12, p. 838

GALLAY, Ya. S.

PA 18T34

USSR/Wire - Drawing  
Metallurgy

May 1947

"The Theory of Multiple-drawn Wire by Sliding," Ya.  
S. Gallay, 6 pp

"Stal" Vol VII, No 5

The theory of multiple-drawing of wire has noticeably  
supplemented and improved the accepted formula for  
designing draw plates. Also permitted the establish-  
ment of a standard process and the greatest expansion  
of diapason of the gage of the wire-drawing machinery.  
Diagrams and formulae.

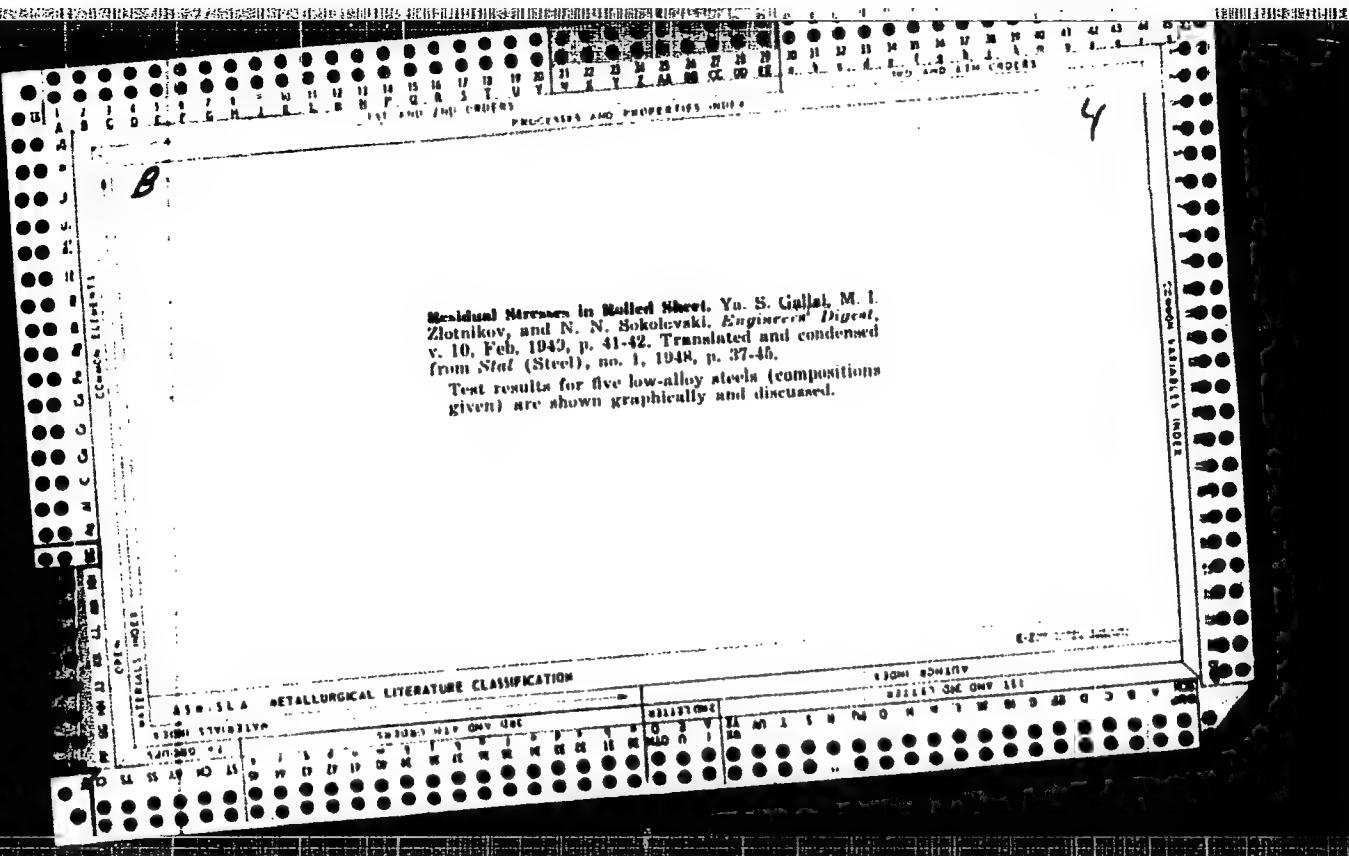
18T34

1. 4, 4 Nov. 1952

Ufimskiy Gidroili rolniki; vol. no. 1, 2 vols., 1952, 1953  
U.S.S.R. Moscow, 1958 1 v. diagrs. (Data on the Ufimsk Gidroili)

LC: 5316.10

2. Manufacturing and Mechanical Engineering in the Soviet Union,  
Library of Congress, 1952.



31

CA

Methods of testing of the water and oil absorption of wood plastics. Ya. S. Gallal and M. A. Rudyk (Leningrad Politek. Inst. i Koniutnorskoe Byuro Gidromontazhi). Zarudskaya Lab. 14, 940-53(1949).—A sample 15 X 15 X 15 mm. of plastic DSP was tested for H<sub>2</sub>O absorption with neutral H<sub>2</sub>O at 50° for 6 days. Oil absorption and swelling were detd. by using dehydrated oil at 50° for 40-50 days. The effects of temp. and of acid and alkali addns. to the H<sub>2</sub>O are reported. 0.1% NaOH increasing absorption slightly and 0.01% H<sub>2</sub>SO<sub>4</sub> somewhat more at 20°. Marshall Sittig

GALLAY, Ya. S.

Gallay, Ya. S. - "The treatment of high carbon steels from rolling heat," Sbornik nauch.-tekhn. rabot (Vsesoyuz. nauch. inzh.-tekhn. o-vo metallurgov, Leningr. otd-niye), Issue 1, 1949, p. 179-86

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

GALLAY, Ya.S., dotsent.

The use of wood plastics in the textile industry. Tekst.prom.  
16 no.2:55-59 F '56. (MLRA 9:5)  
(Textile machinery) (Wood) (Metals, Substitutes for)

GALLAY, YAKOV SAMUILovich.

PHASE I BOOK EXPLOITATION

601

Pavlov, Igor Mikhaylovich, Gallay, Yakov Samuilovich, and Astakhov,  
Ivan Gerasimovich

Rukovodstvo k uchebnym laboratornym praktikum po prokatke (Manual for a  
Laboratory Course in Rolling-Mill Processes) 2d ed., rev. Moscow, Metal-  
lurgizdat, 1957. 5,000 copies printed.

Ed.: Golyatkina, A. G.; Tech. Ed.: Attopovich, M. K.

PURPOSE: The book is intended for students of metallurgical vuzes and for  
students in other fields taking a laboratory course in "Metal Working by  
Pressure".

COVERAGE: The book discusses the methods of conducting a laboratory course in  
metal rolling and roll-design (except pre-rolling). Basic theoretical  
information is given and necessary measuring devices and instruments are  
described. The work assignments in this manual are coordinated with the  
following text books:

Card 1/12

## Manual for a Laboratory (Cont.)

601

1. Pavlov, Ig. M. The Theory of Rolling and Fundamentals of Plastic Deformation, 2nd edition, Metallurgizdat, 1938.
2. Pavlov, Ig. M. - The Theory of Rolling (General Principles of Metal Working by pressure). Metallurgizdat, 1950.
3. Bakhtinov, B. P. and Shternov, M. M., Pass Design on Mill Rolls. Metallurgizdat 1953. There are no references.

TABLE OF  
CONTENTS:

## Introduction

9

1. Purpose of the manual
2. Emergence of rolling-mill training laboratories
3. State of rolling-mill training laboratories in the USSR today
4. Methods of teaching in rolling-mill training laboratories

9

10

13

18

Card 2/12

GEL'FAND, Feliks Vul'fovich; AL'SHITS, Isaak Yakovlevich, kandidat  
tekhnicheskikh nauk; GALLAY Ya. S., redaktor; ARKHANGEL'SKATA, M.S.,  
redaktor izdatel'stva; BUL'SON, I.M., tekhnicheskiy redaktor.

[Plastic-coated bearing] Podshipniki, oblitsovannye plastmassoi.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi  
metallurgii, 1957. 94 p.  
(MIRA 10:11)

1.Zavod "Krasnyy Vyborshets."  
(Bearings (Machinery))

BEL'SKIY, B.N. [deceased]; BUR'YANOV, V.F.; VASIL'YEV, Ye.P.; VITKINA, E.I.;  
GALLAY, Ya.S.; LEVIN, G.I.; MATVEYEV, Yu.M.; CHELYUSTKIN, A.B.;  
ROKOTYAN, Ye.S., red.; ISTOMIN, A.B., red.; CHUZIN, V.I., red.;  
NEPOMNYASHCHIY, N.I., red. izd-va; KARASHEV, A.I., tekhn. red.

[Ferrous metallurgy in capitalistic countries] Chernaya metallurgiya  
kapitalisticheskikh stran. Pt.4. [Rolling mill production] Prokatnoe  
i trubnoe proizvodstvo. Bel'skiy, B.N. and others. Moskva, Gos.  
nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii.  
1958. 627 p. (MIRA 11:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii.  
(Forging) (Rolling (Metalwork)) (Pipe, Steel)

GALLAY, Ya.S., dots.

"Rolling mill practices" by IU.M.Chizhikov. Reviewed by I.A.S.  
Gallai. Izv.vys.uch.-b.zav.; chern.mat. 2 no.6:167-166  
Je '59. (MIRIA 13:1)

1. Severo-Zapadnyy zaochnyy politekhnicheskiy institut.  
(Rolling (Metalwork)) (Chizhikov, IU.M.)

18,0000

15-1  
30/7/35-10-16/39

AUTHOR: Gallay, Ya. S. (Docent)

TITLE: Review of the book "Rolling Production" by Chizhikov, Yu. M., Second Revised and Amplified Edition, Metallurgizdat, 1958, 612 pp, 360 figures

PERIODICAL: Stal', 1959, Nr 10, pp 935-936 (USSR)

ABSTRACT: The reviewed book is recommended as a handbook for metallurgical schools but may also be of use to students of higher learning and to engineers.

ASSOCIATION: North Western Correspondence Polytechnic Institute (Sev.-Zap. zaochnyy politekhnicheskiy institut)

Card 1/1

S/137/60/000/011/016/043  
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No.11, p.116, # 26131

AUTHOR: Gallay, Ya.S.

TITLE: On the Friction Coefficient in Rolling

PERIODICAL: Tr. Mezhvuz. nauchno-tekh. konferentsii na temu: "Sovrem.dostizh. prokatn. proiz-va", Vol. 2, Leningrad, 1959, pp. 391 - 392

TEXT: Simultaneously with investigations of the magnitude of friction forces in rolling, the problem is set on the necessity of continuing the study of physical phenomena occurring at the contact surface (the process of destruction and impression of scale, etc). These phenomena affect considerably the nature of the distribution of friction forces, the quality of the rolled stock surface, and the wear of the rolls.

B.Sh.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

*V. K. V. - PART I OF THE SERIES*

PHASE I BOOK EXPLOITATION SOV/4420

Materialy po teorii prokatki, ch. VI (Materials on the Theory of Rolling, Pt. 6)  
Moscow, Metallurgizdat, 1960. 496 p. 3,250 copies printed.

Compiler: Yakov Samuilovich Gallay, Docent; Ed.: Ig. M. Pavlov, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: L.M. Gordon; Tech. Ed.: M.K. Attopovich.

PURPOSE: This book is intended for scientific research workers, aspirants, and technical personnel of metallurgical and machine-building plants. It may also be of use to students of schools of higher technical education and tekhnikums.

COVERAGE: This is part six of a multivolume series covering materials published from 1933 through 1956 in the Soviet Union and other countries on the theory of rolling of metals and on the results of experimental investigations of certain problems connected with this process. Part six contains materials published in the period 1946 - 1956 on the kinetics of metals in cold and hot rolling, forces acting between the work and the rolls, distribution of pressure over the arc of contact, effect of the speed of rolling on deformation resistance, elastic deformation of a mill caused by pressure of rolling, consumption of

Card 1/8

Materials on the Theory of Rolling, Pt. 6

SGV/4420

energy, determination of torque, and on the influence of rolling speed and temperature on energy consumption. No personalities are mentioned. There are 362 Soviet and non-Soviet references listed by chapters.

## TABLE OF CONTENTS:

Principal Symbols Used in the Text	6
Ch. IV. Forward Slip, Backward Slip, No-Slip	
1. B.P. Bakhtinov's formula for forward slip (1946)	7
2. Forward slip formula with consideration of spread (Ig.M. Pavlov, 1947)	12
3. Forward slip in rolling with tension (Yu.M. Faynberg, 1948)	18
4. Formula for the neutral angle with consideration of spread (A.P. Chekmarev, 1948)	21
5. Slippage and forward slip in rolling in Laut's mill (I.D. Kuzema, 1950)	30
6. Forward and backward slip in rolling between grooved rolls (I.M. Pavlov, M.I. Kapustin, 1950)	37
7. Calculation of forward slip in cold rolling (R.B. Sims, 1952)	53
8. Forward slip in rolling with one friction-driven roll (W. Lueg, K.H. Treptow, 1955)	59

Card 2/8